

shews that it cannot be referred to that genus. It is, as a species, evidently allied to *H. lanceolata*, Hook.

[Pl. V, *Hemionitis Zollingeri*, Kurz, Fig. 1, whole plant, natural size ; ; fig. 1a, a portion of the sterile frond, fig. 2b, a portion of the fruit-bearing under surface of the fertile frond,—the sori are removed. The 2 latter figures magnified.]

LYCOPODIACEÆ.

102. *Selaginella imbricatum* (ought to be *imbricata*, as is also the case with *S. semicordatum*, *aristatum*, &c.), J. Scott, in the list of higher *Crypt.*, 62,—is probably *S. tenella*, Spring. The var. *a. normale* (loc. cit.) is the same as *S. Belangeri*, Spring, and the var. *β. erectum* (ibiden) differs in no way from *S. Junghuhniana*, Spring.



A LIST OF BIRDS OBTAINED IN THE KHASI AND NORTH CACHAR HILLS, by Major GODWIN-AUSTEN, F. R. G. S., Deputy Supdt. Topographical Survey of India.

[Received 1st January, read 5th January, 1870.]

The following list of Birds obtained in the Khasi Hill Ranges is here given, that it may prove useful to Indian Ornithologists, interested in the range and distribution of different species ; for it adds, as might be expected, very little to our previous knowledge of the Birds of India in general, thanks to the researches of Blyth, Jerdon and others. In the N. Cachar Hills, we have arrived at the confines of a Natural Province, the Indo-Chinese, where, it may be expected, a great commingling of purely Indian, Himalayan and Chinese forms takes place ; with many it is probably near the extreme western limit of the one, and the extreme eastern of the other. In the Burreil range,—so little known to us, and almost unknown to the Naturalist,—new species it was thought might be found, and this hope led me to enter on a pursuit I had never before taken up. In possession of Dr. T. C. Jerdon's volumes on the Birds of India, this pursuit soon became one of intense interest, which relieved the monotony of the hours passed buried

in the forests of that range, and the miles a surveyor daily marches through them. To Dr. J e r d o n I owe many a pleasant hour, and much valuable information, that I should never have otherwise known, and I only trust that, as in my own case, the "Birds of India" may lead others in the same way, to first take an interest in, and then collect specimens in the regions they may visit; only thus can we appreciate the labours of the many Naturalists who have worked before us.

I have followed Dr. J e r d o n 's classification throughout, and those birds not included in his purely continental Indian fauna, have been placed under the numbers of their nearest allies. In most cases, these birds are mentioned in the above work. I must here acknowledge the very great aid I have received from Dr. J e r d o n, who has named many doubtful species, and some that I had been unable to identify.

All measurements taken from the fresh bird have been given, with differences of colour &c. noted. In the case of rare birds, a description has been added, for the information of those who may not be in possession of original Ornithological works. The present list contains 207 birds, and I hope to add hereafter, from time to time to it, and thus complete the birds of these Eastern Hills. Should circumstances prevent the carrying out of my present intention, such as the removal of the Survey to some other part of India, I only hope that some one else may take up the work and finish the series.

Order, RAPTORES.

Sub.-Fam, FALCONIDÆ.

17. *Tinnunculus alaudarius*, B r i s s.

Sub.-Fam. ACCIPITRINÆ.

22. *Astur (Lophospiza) trivirgatus*, T e m.

A fine live specimen of this bird caught by the Nagas of Asálu was brought to me and was kept some time in confinement. The diurnal families of this order are not by any means numerous in the North Cachar Hills, and I do not remember ever having seen the common kite. A large Eagle was occasionally seen near the higher peaks of the Burrail, but never ventured within shot.

Sub.-Fam. AQUILINÆ.

34. *Limnaetus niveus*, T e m.39. *Spilornis cheela*, D a u d.

Sub.-Fam. MILVINÆ.

55. *Haliastur Indus*, B o d d.

Feet yellow, irides dull yellow, extent 47 inches.

56. *Milvus Govinda*, S y k e s.

This bird is not a visitant to Cherra, until rains begin to cease, early in September.

58. *Baza lophotes*, C u r.

Only one specimen of this handsome bird was seen and shot at the head of the Jhiri, the country being all dense forest for miles. Length 14 inches; extent 30"; wing $9\frac{3}{4}$ "; tail $5\frac{1}{4}$ "; plume $2\frac{1}{4}$ "; tarsus 1"; spread of foot $2\frac{3}{4}$ "; irides inner circle madder brown shading off into pink grey. Primaries 3rd and 4th the longest.

Family, STRIGIDÆ.

61. *Strix candida*, T i c k e l l.

Obtained on the border of the grass country near the Kopili river.

75. *Ephialtes Lempigi*, H o r s f.

Dr. J e r d o n, who saw this bird, pronounced it to be *E. Lempigi*, resembling the Malabar variety; I had set it down as *pennatus* var. It certainly is a very rufous type of the former named species, and as these birds differ so much in plumage and size from various localities, I give a description taken down before the bird was skinned.

Above, chesnut rufous, feathers on top of head black shafted, barred black and dusky rufous on back, scapulars edged white on outer web with a subterminal black spot. Primaries distinctly barred with white and rufous, having narrow black lines bordering the white bars of the outer web, inner webs greyish black, breast a paler, but rich, tint of rufous, indistinctly spotted with black,—perhaps streaked would be most correct; more white on belly, the under tail coverts being pure white; legs rufous to end of tarsus, tail barred dusky on outer feathers, with fine black on the two central. Buff brown, feathers barred black and tipped brown. Irides light golden yellow, bill pale yellow, legs almost white or palish flesh colour. Length about 8 inches; extent $18\frac{1}{2}$ "; wing 5·8"; tail $3\frac{1}{2}$ "; tarsus 1·3".

76. *Athene Brama*, Tem.
 79. *Athene cuculoides*, Vigors.

Order, INSESSORES.

Fam. HIRUNDINIDÆ.

82. *Hirundo rustica*, L.

Breeding at Asalú in April in the high roofs of the Naga houses. The specimens shot were small, only 12 inches in extent. Jerdon mentions this bird as arriving early in July in Upper Burma; they thus probably breed along the whole line of high hills from the Burrail and Patkoi ranges into North Burma etc.

102a. *Cypselus tectorum*, Jerdon, Proc. Asiat. Soc. Bengal, Feb., 1870, p. 61. Differs from *C. batassiensis*, Gray, in being far darker with a shorter tail, the feet and claws of the latter species being also much stronger and larger. Dr. Jerdon, to whom I gave a specimen of this bird, pronounced it at once a different species.

This little Swift was numerous in the Naga villages around Asalú in March and April, and was then breeding in the roofs of the houses; a nest that I obtained was attached to the upper surface of a kind of palm leaf, in the thatch of a house; it is a neat very shallow construction of a fluffy grass seed, stuck together with saliva, a feather or two intermingled with the grass. The eggs were two in number, pure white, resting against the lower side of the nest, which is just of sufficient depth to retain them, so that the parent bird can hardly be said to sit on her eggs in the nest, but rather hangs on to it, in apparently a most uncomfortable position, and how the young when hatched remain with safety in the nest, it is difficult to understand, unless the power of hanging on by the claws is thus early developed. The nest is about $2\frac{1}{2}$ inches in diameter.

On the Peak of Hengdon at the head of the Jhiri river, at an elevation of 7000 feet, the ridge on its west face being almost perpendicular for several 100 feet, a very large Swift was common, flying with great velocity, it may have been *Acanthylis caudacuta*, Lath., but I was unable to bring one down; they shot past like lightning and often well within shot.

Family, TROGONIDÆ.

116. *Harpactes Hodgsoni*, Gould.

Family, MEROPIDÆ.

117. *Merops viridis*, Lin., extent $11\frac{1}{2}$ inches.

Family, CORACIADÆ.

124. *Coracias affinis*, McClelland.

Family, HALCYONIDÆ.

127. *Halcyon Gurial*, Pearson.

134. *Alcedo bengalensis*, Gmelin.

Not often seen in the higher hills, I obtained one at the head of the Jhiri. A large species was noticed once or twice in North Cachar.

136. *Ceryle rudis*, Lin.

Family, EURYLAIMIDÆ.

138. *Psarisomus Dalhousiæ*, Jameson.

This bird was common at the head of the Jhiri river, 20 or so together in the heavy jungle, and by no means shy. It is a smaller bird than the size given in Jerdon, though agreeing precisely in plumage; it is a truly beautiful bird. Length 10 inches; tail 4"; wing 4"; tarsus 1.2"; bill at front 0.65", breadth 0.70", height 0.35".

139. *Serilophus rubropygia*, Hodgson.

I obtained two specimens of this bird, one having a fine collar of shining white.

Family, BUCEROTIDÆ.

146. *Aceros nipalensis*, Hodg.

Whole body black with glossy green tinge on back and wings, only the tips of the four first primaries and end of tail, for 6 inches, white. Head well covered with long hairy black feathers, drooping backward down the neck, feathers above the tarsus, very long and slightly tinged with rufous; nacked space on throat vermilion, heart-shaped, bounded on throat by a narrow grey black band, confined to the base of the lower mandible and side of neck; around the eye blue, under eyelid pink; eyelashes well developed; beak curved and very pointed, no casque; colors pale waxy yellow with two well marked black bars at base of upper mandible, the lower has a pale soiled appearance for about $1\frac{1}{2}$ inches.

Length 3 feet 6 inches; wing 16 inches; tail 1 foot 5 inches.

Length of bill to gape $6\frac{1}{2}$ inches, girth $7\frac{1}{2}$ " ; foot from fore claw to hind claw $4\frac{1}{4}$ " ; tarsus $2\frac{3}{4}$ ".

146a. *Rhyticeros plicatus*, L a t h a m.

The whole of the head, neck, back, breast, and wing black, with a green sheen. Head finely crested with a plume of black hairy feathers, tail all white. The naked space on the throat pale green and blue with an indigo band ; orbital skin dull red ; mandible pale waxy buff, casque small, irides pale brown, feet yellow, claws black, strong. Length 3 feet 2 inches ; extent 5 feet 2 inches ; wings $18\frac{1}{4}$ " inches ; tail 1", spread of foot including claws 5 inches ; mandible $6\frac{1}{4}$ ", its girth at base 8", depth 3" ; this bird was shot at Garilo near Asalú where the hornbills were particularly numerous in January and February ; in May very few were to be seen. The Nagas are very clever bird-snarers and brought into camp great numbers of birds for sale, among them a few Hornbills, of other birds Barbets were particularly numerous.

146b. *Aceros* ?, sp. *indet.* Yellow throated Black Hornbill.

Whole of body and wings black with a tinge of blue ; neck, extending from over the eyes, and tail pure white. From the base of the upper mandible a line of reddish brown feathers commence, and widening and lengthening these cover the whole of the back, part of the head and neck, merging into a black line as it approaches the back. Orbital skin pink, eyelashes long, irides a bright red, like red sealing wax ; naked part of throat bright yellow ; casque small with seven indistinct ridges pale coloured—separated by black bars, base of both mandibles barred in same manner, the bars being narrow ; this thickening at base of the bill extends for $2\frac{1}{2}$ to 3 inches. General colour of bill greenish white. Length 3 feet 9 inches, expanse 5 feet 4 inches ; tail 1 foot 1 inch ; wing 19 inches ; bill to gape 9 inches ; depth $3\frac{1}{2}$ ", casque $3\frac{1}{2}$ "

146c. *Anorhinus galeritus*, T e m m. (J e r d o n B. of I, p. 252).

A. carinatus, B l y t h, is the young of this species.

The whole of the upper parts of a pale slaty grey, having in certain lights a greenish tinge, throat and sides of neck white, dull rufous on the breast and belly, thighs and under tail coverts. Primaries greenish black, tipped and barred white, a white spot

formed by the tip of the outer wing coverts, the base of primaries being also of this colour; secondaries edged whitish, tail tipped white, centre feathers same colour as the back. Bill yellowish white. Length about 31 inches; wing 13"; tail 13"; bill to gape 4½"; depth 2"; measurements taken from stuffed specimen.

Tribe, SCANSORES.

Family, PSITTACIDÆ.

149. *Palæornis rosa*, B o d d.
 150. *Palæornis schisticeps*, H o d g s.
 152. *Palæornis Javanicus*, O s b e c k.
 153. *Loriculus vernalis*, S p a r r m.

Differed slightly from Jerdon's description, the beak was bright red, not dark yellow, wing and tail dark green, the tinge of blue being very faint; feet orange.

Family, PICIDÆ.

155. *Picus majoroides*, H o d g s o n.

Breast and belly are decidedly buff yellow, not isabelline. Length 9½"; extent 15"; wing 4¾"; tail 3¼"; bill 1⅜", spread of foot 2"; shot on Hengdon Peak.

157. *Picus Macei*, Vieill.

Length 8 inches; extent 13"; tail 3"; bill 1".

163. *Yungipicus rubricatus*, Blyth.

162. *Yungipicus pygmaeus*, Vigors.

166. *Chrysocolaptes sultaneus*, H o d g. Length 13 inches.

173. *Chryspholegma flavinucha*, Gould.

The lining of wings in this specimen is pale brown.

174. *Chryspholegma chlorolophus*, Vieill.

186. *Vivia innominata*, Burton.

187. *Sasia ochracea*, H o d g s o n.

Shot near Nenglo, Asalú hills, in February in scrubby jungle; differs somewhat from Jerdon's description and may be *Picumnus abnormis*, Tem. Rich ferruginous on breast, belly and nape, darker and greener tinge on back, linings of wings pale blue grey, irides crimson.

Family, MEGALAIMIDÆ.

191. *Megalaima virens*, B o d d.

192. *Megalaima Hodgsoni*, B o n a p.

At Asalú it is found at 3,600 feet. The specimens, I obtained, had the vent and under tail coverts of the same green as the lower breast ; bill fleshy pink, tip of upper mandible dark.

195. *Cyanops Asiatica*, L a t h.

196. *Cyanops Franklinii*, B l y t h.

196a. *Cyanops cyanotis*, B l y t h. (J e r d o n, l. c., I, p. 315).

Has a crimson patch at back of occiput, no crimson at base of lower mandible as in the next species, in which it is orange.

Family, CUCULIDÆ.

204. *Cuculus striatus*, D r a p i e z.

Length 13 inches, wing 8"; tail 6½".

209. *Polyphasia tenuirostris*, G r a y.

Length 9½ inches ; extent 12½" ; wing 4½" ; tail 5¼" ; tarsus ⅙ ; bill at front ⅝".

214. *Eudynamys orientalis*, L i n n., a female measured in length 15 inches ; tail 7".

215. *Zanclostomus tristis*, L e s s.

218. *Centropus viridis*, S c o p o l i.

Family, NECTARINIDÆ.

223. *Arachnothera magna*, H o d g s o n.

225. *Æthopyga miles*, H o d g s o n.

No scarlet in the tail feathers whatever, below the breast dull green grey, no tinge of brown, if tinged at all it is with yellow down the centre. Length 5 inches ; bill ¾", wing nearly 2⅓".

229. *Æthopyga Nipalensis*, H o d g s o n.

231. *Æthopyga saturata*, H o d g s o n.

Length 4¼ inches ; scapulars, interscapulars, side of neck and back maroon, a very marked band of yellow on the rump ; in all other respects it agrees with J e r d o n 's description.

231a. *Anthreptes*—sp.—?

A single specimen was obtained at Teria Ghat and shown to me by Dr. J e r d o n in December 1869. Head and upper back rich metallic green fading on lower back, but strong again on upper tail coverts ; wing and tail black, the shoulder of the former has a tinge of blue, outer edges of centre tail feathers metallic green, ear coverts rich purple lake, with a streak on the side of the neck

metallic magenta ; chin and throat rufous, or sienna ; rest of lower plumage bright canary yellow. Length 4.4 inches ; wing 2.05", tail 1.7" ; bill black, length at front .55" ; legs dark brown, tarsus .65".

236. *Dicæum coccineum*, Scopoli.

241. *Myzanthæ ignipectus*, Hodgson.

My specimens also have a black streak down the centre of the abdomen, commencing at the red patch on the breast.

251. *Sitta cinnamomeoventris*, Blyth, lateral tail feathers deep black, not the centre ones.

252. *Sitta formosa*, Blyth.

Bill grey black ; lower mandible pale grey at base ; feet with pale yellow soles. I only obtained one specimen of this rare and lovely bird at Asalá, evidently as rare on this eastern side as in Sikkim.

253. *Dendrophila frontalis*, Horsf.

Family, UPUPIDÆ.

254. *Upupa epops*, Linn.

This is a rare bird on the Burreil range.

Family, LANIADÆ.

258. *Lanius tephronotus*, Vigors.

262. *Lanius arenarius*, Blyth.

263. *Tephrodornis pelvica*, Hodgson.

267. *Hemipus capitalis*, McClelland.

Bill black, legs dark brown. Length 5 inches ; wing $2\frac{1}{2}$; tail $2\frac{1}{4}$ " ; tarsus 0.45".

269. *Volvocivora melaschistos*, Hodgson.

270. *Graucalus Macei*, Lesson.

Irides rich brown, not lake ; a narrow edging of pale grey on the primaries.

271. *Pericrocotus speciosus*, Latham, ♀ obtained.

272. *Pericrocotus flammeus*, Forster.

273. *P. brevirostris*, Vigors.

274. *P. solaris*, Blyth.

275. *P. roseus*, Vieillot.

Length $7\frac{1}{4}$ inches ; wing $3\frac{1}{4}$ " ; tail 4".

278 bis. *Dierurus longus*, Horsf.

280. *Dicrurus longicaudatus*, A. H a y.

282. *Chaptia ænea*, Vieillot.

Length $9\frac{7}{8}$ inches ; wing 5" ; tail $4\frac{3}{4}$ " ; extent 14" ; tarsus $\frac{5}{8}$ " ; bill at front $\frac{3}{4}$ ".

284. *Edolius paradiseus*, Lin.

287. *Artamus fuscus*, Vieill.

First seen at Asalú in April, generally flying about leafless trees, in the clearer parts of the country. The birds were breeding in Cachar in April and May, the young sitting out on the palm branches.

290. *Myiagra azurea*, Bodd., both ♂ and ♀ obtained.

291. *Leucocerca fuscoventris*, Franklin.

The five outer tail feathers tipped dull white, decreasing ; legs brown. Length $7\frac{3}{4}$ inches ; extent $8\frac{1}{2}$ " ; wing 3" ; tail $4\frac{1}{4}$ " ; bill in front $\frac{3}{8}$ " ; tarsus $\frac{3}{4}$ ".

294. *Chelidorhynch hypoxantha*, Blyth.

Under side of bill orange. Length $4\frac{1}{2}$ inches, extent $6\frac{1}{2}$ ", wing $2\frac{1}{4}$ ", tail $2\frac{1}{4}$ ", legs umber brown.

295. *Cryptolopha cinereocapilla*, Vieill.

A specimen obtained at Cherra was bright yellow.

296. *Hemichelidon fuliginosus*, Hodg.

In the young bird the head was spotted with white, a white circle round the eye, edge of secondaries and wing coverts pale ferruginous, finely spotted with various shades of white and dusky brown on breast, albescent on belly and lower tail coverts, feet feeble, wing measured 3 inches in my specimen.

301. *Eumyias melanops*, Vigors.

308. *Cyornis magnirostris*, Blyth.

The description of a female has only been hitherto made. Dr. Jerdon to whom I showed my specimen pronounced it a male, and of which no specimen would appear to be in the Asiatic Museum, Calcutta, nor in the British Museum. I procured but the single specimen at Asalú,—the description is as follows :—

♂,—above dark verditer blue, paler and brighter over forehead and eyes ; shoulder of wing, chin, throat, and breast rich ferruginous, fading to fulvescent on lower breast, white on belly and under tail coverts ; wings pale black, edged pale verditer. Beak long and straight, well hooked, rictal bristles rather short,

nareal well developed, irides dark brown. Legs pale flesh color, tarsus short, inner toe the shortest; claws moderate; length 6 inches, wing 3·3", tail 2½", tarsus $\frac{7}{10}$ ", bill at front ½".

314. *Niltava sundara*, H o d g.

Rather a common bird about Asálu.

315. *Niltava Macgrigoriæ*, B u r t o n.

316. *Niltava grandis*, B l y t h.

319. *Siphia strophciata*, H o d g.

321. *Siphia superciliaris*, B l y t h.

Obtained on Hengdan Peak, 7,000 feet.

323. *Erythrosterina leucura*, G m e l.

Family, MERULIDÆ.

327. *Tesia castaneo-coronata*, B u r t o n.

Hengdan peak, at 7,000 feet. This bird haunts thick and low brushwood, and is difficult to shoot in such cover; it emits a loud rather musical note from time to time, as it hops from bough to bough. The description in J e r d o n ' s work being short, I give a fuller. Hinder part of head and back olive green, the feathers showing grey below when ruffled, front of head and ear coverts bright rufous, under throat bright yellow fading and becoming of a green tinge on belly, side, and thigh coverts; wing and tail green grey. Bill red brown, dark yellow below. Irides dark brown, legs brown.

328. *Tesia cyaniventor*, H o d g., a dark streak from the eye over the ear coverts. Length 3¾ inches, wing 2", tarsus $\frac{7}{8}$.

329. *Pnoepyga squamata*, G o u l d.

Tail of only 4 minute plumes and very short, tarsus 1 inch long, spread of foot 1½", bill pink grey, eye large, irides dark brown; length 3¾ inches, extent 6½", wing 2¾"; obtained on Hengdan Peak, 7,000 feet, in thick underwood.

330. *Pnoepyga pusilla*, H o d g.

331. *Pnoepyga caudata*, B l y t h.

332. *Pnoepyga longicaudata*, M o o r e.

Obtained at Cherra Punji in July. The feathers are margined with black on the head and back of neck only, and with faint shafts, wings and tail dull rufous brown. Length 4¾ inches, wing 2, tail 2", tarsus 0·9", bill at front 0·5".

The exact locality for this bird appears to have been hitherto very doubtful; Moore must have received his specimens from these Hills also.

336. *Brachypteryx Nipalensis*, H o d g.

337. *Brachypteryx hyperythra*, ♀, J e r d o n and B l y t h.

This bird was pointed out to me by Dr. J e r d o n as probably a male of the above species. A single specimen was formerly obtained, at Darjeeling and as the bird is very rare I append a description.

♂.—The entire plumage of a dull indigo, a white streak above the eye, extending from the base of the upper mandible. Primaries dusky black, tail black, wing 2·6 inches, tail 2", tarsus 1·15". Shot at Asálu.

338. *B. cruralis*, B l y t h.

Wing 2·5 inches, tail 2", tarsus 1·3", bill at front ·55".

343. *Myiophonus Temminckii*, V i g o r s.

Called "Simtúng" or "Smelling bird" by the Khasias, perhaps from being a coarse or dirty feeder.

344. *Hydrornis Nipalensis*, H o d g.

347. *Hydrobata Asiatica*, S w a i n s o n.

351. *Petrocosyphus cyaneus*, L i n.

358. *Turdus chrysolaus*, T e m m. = Lahem, Par
♀ Obtained at Cherra Punjí.

Whole upper part pale olivaceous, darker with brown on the head, a pure white supercilium, a dark band from base of lower mandible fading to side of neck, chin and throat white, breast pale buff, lower breast and belly white; the buff color extends along the side under the wing. Quills dusky, olivaceous; bill black above, yellow below. Irides dark brown, legs dusky yellow, sole of foot yellow. Length $9\frac{1}{4}$ inches, wing 5", extent 14", tail $3\frac{1}{2}$ ", tarsus 1·2".

The measurements of this specimen are much larger than those given in the "Birds of India" and the bird being rather rare I have added a description.

361. *Merula bouboul*, L a t h.

364. *Planesticus ruficollis*, P a l l a s.

Length $9\frac{1}{2}$ inch, wing 5·3", tail 4·1", tarsus 1·3", bill at front 0·7". Supercilium paler than the rest of the ferruginous coloring.

365. *Planesticus atrogularis*, Tem. ♀

370. *Oreocincla mollissima*, Blyth.

374. *Paradoxornis gularis*, Horsf.

Shot at Asálu in January. Bill dark yellow, legs slaty green.

388. *Alcippe Nipalensis*, Hodg.

This bird has a conspicuous white ring round the eye, not mentioned in the description. Bill grey, feet pale fleshy pink, irides light brown. Length 5 inches, extent $6\frac{3}{4}$ " , wing $2\frac{3}{4}$ " , tail $2\frac{1}{4}$ " , tarsus 0·8" .

391. *Stachyris nigriceps*, Hodg.

Irides pale pink. Length 5 inches, extent $6\frac{3}{4}$ " , wing 2·4" , tarsus ·85" .

393. *Stachyris ruficeps*, Blyth.

Irides light red. Length $4\frac{3}{4}$ " , wing 2" , tail 2" , tarsus ·10" , spread of foot $1\frac{1}{4}$ " .

394. *Stachyris chrysaea*, Hodg.

395. *Mixornis rubicapillus*, Tickell.

A bird which I have little doubt is this species was obtained in the Jatinga valley, near Parie Ghat in dense bambú and under-wood jungle; about 12 or 15 were together. The dimensions are smaller than those given in Jerdon's book, and it differed in a few points.

Bill blue grey, legs pale horny yellow, feet stronger yellow. Irides pinkish buff. Length 5 inches, wing 2·1" , tail $1\frac{3}{4}$ " , tarsus 0·7" .

396. *Timalia pileata*, Horsf.

Lower tail coverts of the same pale ferruginous as abdomen, slightly tinged with olivaceous; tail very distinctly barred.

399. *Pellorneum ruficeps*, Swainson.

Tail with every feather tipped whitish.

401. *Pomatorhinus Phayrei*, Blyth.

Length 9 inches, extent $10\frac{3}{4}$ " , wing 3·4" , tail $4\frac{1}{2}$ " , tarsus 1·45" , bill 1·15" . Irides pale yellow. This bird I noticed running up the boughs and hunting over them in the crevices of the bark with all the habits of a creeper or nut-hatch; obtained at Cherra Punjí.

402. *Pomatorhinus schisticeps*, Hodg.

405a. *P. McClellandi*, Jerdon.

This bird was first recorded in my MS. List as *P. erythrogeus* of Gould, but differs from this species by its much shorter bill. It was named and sent to Gould by Dr. Jerdon, who first discovered it in the Khasi Hills, but I believe it has never yet been described. I, therefore, give a description and measurements from the fresh specimen.

Plumage generally dull throughout, back olivaceous with a brown tint, tail coverts rusty. Throat and breast white, the former dingy, upper part of breast spotted faintly with greenish brown. Irides pale yellow. Bill much curved, blunt, no notch; legs dull brown, strong. Length 9 inches, extent 10", wing 3.2", tail 3.1", tarsus 1.1". Spread of foot 1 $\frac{2}{5}$ ", bill to gape 1.2".

Obtained at Nenglo beyond Asalu, under the Burrail range. Dr. Jerdon informs me, it is by no means rare near Débroghur, Assam.

407. *Garrulax leucolophus*, Hard.

412. *Garrulax pectoralis*, Gould.

413. *G. moniliger*, Hodg.

416a. *Trochalopteron ruficapilleum*, Blyth.

Shot on Hengdan peak. Back dull olivaceous, top of head rich madder brown, darker under the throat and ear coverts. Breast, back of neck and upper back finely mottled with scale shaped black brown spots, these spots smaller on the breast and belly. Thigh coverts olive green with a yellow tinge; forehead, lores and round the eye grey. Primaries, secondaries and tail rich chrome yellow green, the first pale black on inner web; four last secondaries edged with grey green at tip. Scapulars maroon brown. Irides grey, legs pink brown, under tail and inside wings green black. Length 10.5 inches, extent 12.3", wing 4.1", tail 4.3", tarsus 1.3", spread of foot 2".

420. *T. squamatum*, Gould.

421. *T. rufogulare*, Gould, ♀?

My specimen differs in being olive, intermingled with black on the cap. Tail with broad black band, tipped rusty, outer edge of primaries pale ochre, faint rufous spot in front of eye, ear coverts pale rufescent. Bill grey, legs pale grey, orbital skin dark blue. Length 9 inches, wing 3.6", tail 4.1", tarsus 1.45".

422. *Trochalopteron phaeniceum*, G o u l d.

422 a. **Trochalopteron Austeni**, J e r d o n.

This bird was pointed out to me as new by Dr. J e r d o n to whom I handed it over to describe; he has done so in the Ibis. To complete here the account of the bird, I give a description as well.—Above rufous brown, greenish upon the rump; feathers of the tail and neck pale shafted, most markedly on the side of neck behind the ear coverts; under the throat pale brown, gradually speckled on the lower breast with bars of whitish, each feather tipped with dark brown. The white bars increase in breadth towards the belly which is nearly all dusky white. Thigh coverts olivaceous, primaries black grey, outer web rich rufous brown, wing coverts same color, finely tipped white; secondaries also tipped white; four first primaries grey on outer web, gradually decreasing. Tail with two centre tail feathers rich rufous; four outer terminating in dark grey, tipped with white narrowly. Legs pale pinkish grey, strong in form. Bill black, short and well notched. Irides umber.

Length $9\frac{1}{2}$ inches, extent $10\frac{1}{2}$ " , wing 4" , tail $4\frac{1}{2}$ " , tarsus $1\frac{1}{2}$ " , spread of foot $\frac{3}{4}$ " , bill at front .63" ; found in underwood on Hengdan Peak, Principal Trigonometrical Station of observation at head of the Jhiri river, 7000 feet; generally in pairs, uttering a harsh croaking call, and answering each other from time to time.

427 a. *Actinodura* near *Egertoni*, G o u l d.

This bird differs from the above named in the crown and nape being ashy brown. Shoulder of wing and coverts olivaceous brown. Tail pale rufous brown, *all* the feathers distinctly barred. Beneath pale rufescent, no ashy tinge and pale rufous on the neck and breast; the principal point of difference is in the centre tail feathers, and its rather smaller size. Wing 3.2" , tail $4\frac{1}{2}$ " .

This bird was common on the high parts of the Burrail range, always seen hunting in the highest branches of the forest trees.

430 a. *Sibia gracilis*, M c C l e l l.

This bird was very abundant in the Burrail hills during the spring after March, generally in forest, I noticed it very busy after insects on the large flowering forest trees, the Simul or Cotton tree was a favorite.

Fam. BRACHYPODIDÆ.

446 a. *Hypsipetes concolor*, Blyth.447. *H. McClellandi*, Horsf.448. *Hemixos flava*, Hodg.

Obtained in January at Asálu.

449. *Alcurus striatus*, Blyth.451. *Criniger flaveolus*, Gould.451 a. *Spizixos canifrons*, Blyth.

From Surarim, near Cherra Punjí, shot by Dr. Jerdon who examined the stomach, and found that the bird is also an insect-feeder and does not live entirely on fruit.

453 a. *Ixos flavescens*, Blyth.

Obtained at Asálu in April.

456. *Rubigula flaviventris*, Tickell.460. *Otocompsa jocosus*, Tem.460 a. *O. monticolus*, McClell.461. *Pycnonotus pygæus*, Hodg.465. *Phyllornis aurifrons* Temm.466. *Phyllornis Hardwickii*, Jard. and Selby.469. *Irena puella*, Latham.472. *Oriolus melanocephalus*, Lin.474. *Oriolus Traillii*, Vigors.

Family, SILVIADÆ.

475. *Copsychus saularis*, Temm.

The wing has a white bar formed by the wing coverts and outer web of the last secondaries.

477. *Myiomela leucura*, Hodg.483. *Pratincola Indica*, Blyth.497. *Ruticilla rufiventris* Vieillot.Length $5\frac{3}{4}$ ", extent 9", wing 4", tail $2\frac{1}{2}$ ".505. *Ruticilla fuliginosa*, Vigors.506. *Chæmorornis leucocephala*, Vigors.Length $7\frac{1}{2}$ inches, extent $11\frac{1}{4}$ ", wing $3\frac{1}{2}$ ", tail 3".508. *Ianthia cyanura*, Pallas.509. *Ianthia hyperythra*, Blyth.524. *Horornis flaviventris*, Hodg.

A dull yellowish ring round the eye, same color on breast, wings

and tail dull olive grey with brown. Length $4\frac{7}{8}$ inches, wing $2''$, tail $1\frac{3}{4}''$, tarsus $\frac{7}{8}''$.

531. *Orthotomus coronatus*, J e r d o n and B l y t h.

Irides dark brown, length $4\frac{3}{4}$ inches, extent $6''$, wing $1\frac{7}{8}''$, tail $1\frac{7}{8}''$, tarsus $\frac{9}{16}''$. One specimen shot at Cherra Punjí in October.

539. *Cisticola schænicola*, B o n a p a r t e.

543. *Drymoipus inornatus*, S y k e s.

Bill grey at base beneath, legs pink.

549. *Suya atrogularis*, M o o r e.

♀ with a black patch on the throat extending to breast which is whitish.

561. *Phylloscopus affinis*, T i c k e l l.

563. *Reguloides occipitalis*, J e r d o n ; from the head of the Jhiri river, N. Cachar.

Irides very dark brown; bill above pink grey, below orange; tarsus grey; feet yellow. Length 4 inches, wing $2\cdot2''$.

565. *Reguloides proregulus*, P a l l a s. Obtained at Cherra Punjí, in October.

567. *Reguloides viridipennis*, B l y t h.

569. *Culicipeta Burkii*, B u r t o n. Asálu in January.

572. *Abrornis xanthoschistos*, H o d g.

Bill dark brown above, orange beneath, tarsus fleshy grey.

575. *Abrornis poliogenys*, B l y t h.

The loreal feathers tipped with greyish white was not seen in my specimen, obtained at Cherra Punjí, in July. Two ill-defined broad dark grey streaks on the head, chin greyish white merging into pale yellow on the throat.

584. *Enicurus maculatus*, V i g o r s.

585. *Enicurus immaculatus*, H o d g.

Length 9 inches, extent $11\frac{1}{2}''$, wing $3\frac{5}{8}''$, tail $4\frac{3}{4}''$. Chin and throat black.

588. *Enicurus nigrifrons*, H o d g s ?

Obtained at Cherra Punjí.—A young bird.

Description.—Above black with a ferruginous tinge and a few scattered pale brown spots on the tips of the feathers of the head. Breast black with ashy brown tinge, centre feathers streaked with whitish, upper tail coverts, belly, bar on wing, tips of se-

condaries decreasing from the last, the two outer tail feathers, and tips of the central ones, white. Pale ferruginous tint on the tips of the white feathers, forming the wing band. Length 7.5 inches, extent 10.75", wing 3.6", tail 3.5", tarsus 1.2", bill in front 0.6".

590. *Motacilla luzoniensis*, Scopoli.

592. *Calobates sulphurea*, Bechstein.

At Cherra in September; this specimen had the white wing band very indistinct.

596. *Pipastes agilis*, Sykes.

599. *Corydalla Richardi*, Vieillot.

Obtained in October at Cherra. Length $7\frac{3}{4}$ inches, wing 3.7", tail 3", not fully grown, bill at front 0.55", hind toe and claw $1\frac{1}{2}$ ".

600. *Corydalla rufula*, Vieillot.

601. *Corydalla striolata*, Blyth.

Obtained on Mahadeo Peak, Asálu; outermost tail feathers 2-3rds white obliquely,—penultimate with a white spot on inner web at tip.

605. *Anthus cervinus*, Pallas.

Winter plumage olive brown, and two moderately pale wing bands. Length 6.5 inches, wing $3\frac{3}{8}$ ", tail $2\frac{1}{2}$ ", tarsus .9", hind claw .4", extent $10\frac{1}{4}$ ".

Family, AMPELIDÆ.

609. *Pteruthius erythropterus*, Vigors.

Tail feathers are tipped yellow and the head dark ash.

611. *Allotrius œnobarbus*, Temm.

Obtained at Hengdan. Top of head, back, and tail bright olive green, white circle round the eyes, with another outer circle of grey extending behind to the nape; ear coverts yellow green edged with a line of yellow; a marked very dark grey line on side of neck, a patch of brown on each side of chin, centre being buffy white, fading rapidly into the canary yellow of the breast and belly; wing and shoulder of wing grey. Bastard wing black. Wing coverts banded black and chesnut, 2 bands of each color; tail same as noted in Jerdon's description.

Length 4 inches, extent $6\frac{1}{2}$ ", wing $2\frac{3}{8}$ ", tail $1\frac{1}{2}$ ", tarsus $\frac{7}{8}$ ", legs flesh colored, irides dark brown. In another specimen obtained at Cherra the wing bars were white, the under tail coverts bright yellow, and a whitish ring round the eye.

613. *Leioptila annectans*, Blyth.

Obtained at head of Jhiri river, close under the Burreil range.

615. *Leiothrix argentauris*, Hodg.

The redder color of the upper tail coverts marks the distinction between male and female.

616. *Siva strigula*, Hodg.

Irides red brown. Length 6 inches, extent $7\frac{3}{4}$ " , tail $2\frac{1}{2}$ " , legs and bill grey. I noticed that these birds, when feeding together along the tops of the forest trees, are particularly noisy, a chattering twitter.

617. *Siva cyanouroptera*, Hodg.

619. *Minla castaniceps*, Hodg.

Tail pale slaty, chin and throat buffy white, primary coverts rich black, forming a spot on the shoulder. Length $4\frac{1}{4}$ inches, extent 6" , wing $2\frac{1}{4}$ " , tail $1\frac{1}{4}$ " , tarsus $\frac{9}{10}$ " , irides red brown, bill grey, legs yellow ochre.

620. *Minla cinerea*, Blyth.

623. *Ixulus flavicollis*, Hodg.

Feathers of the throat with dark shafts, forming a few faint streaks. Bill pinkish grey, legs pale yellow, irides brown. Length $5\frac{1}{4}$ inches, wing $2\cdot7$ " , tail 2" , tarsus $\frac{7}{8}$.

624. *Ixulus occipitalis*, Blyth.

625. *Ixulus striatus*, Blyth.

Head with feathers of anterior part scaly, pale, margined rufous brown on the occiput and ear coverts, irides dark red. Length $5\frac{1}{2}$ inches, extent 8" , wing 3" , tail 2" , tarsus $\frac{7}{8}$ " .

630. *Erpornis xantholeuca*, Hodg.

At 5000 feet under Hengdan Peak, head of the Jhiri river.

631. *Zosterops palpebrosus*, Temm.

Legs grey,—one specimen wing 2 , tail $1\frac{1}{2}$; another specimen wing $1\frac{7}{10}$ " , tarsus $\frac{5}{8}$ " , bill $\frac{3}{8}$ " .

649. *Machlolophus spilnotus*, Blyth.

650. *Melanochlora sultanea*, Hodg.

Tribe, CONIROSTRES.

Family, CORVIDÆ.

673. *Cissa Sinensis*, Brisson.

One of these birds kept by me at Cherra Punji sang a number of different bars, in a very loud key, one so piercing, it was quite disagreeable to be near it,—yet he would often twitter in a low very melodious way. These different calls never followed each other in succession, but after long intervals, and when he commenced a song, it was kept up for some time. On the sight of a fresh shot bird, its favorite food, he became extremely noisy, or to call attention to its wants on approaching the cage would make a gurgling noise in the throat. He hung the food about the bars of the cage, or stuck it away in corners. After about six months in confinement, he became very imitative, picked up the crowing of a cock, and was perfect at the cackling of a hen after laying. These birds never retain their lovely chrysophrase green colour in captivity, they soon lose it, and although the above bird moulted in confinement, the new feathers were a dull antwerp blue, with the slightest tinge of green on the head at first, which very soon disappeared.

674. *Dendrocitta rufa*, Scopoli.

Irides dark brown; called "Kashkussi" in Cachar. Length 17 inches, wing 7", tail 10".

676. *Dendrocitta Sinensis*, Lath.

683. *Sturnopastor contra*, Lin.

Irides pale yellow. This bird is as common in Cachar, as the Myna, *A. tristis*, next mentioned. The Cachar bird is *S. superciliaris* of Blyth. The white supercilium and white on forehead is very marked in the birds from this eastern side of India.

684. *Acridotheres tristis*, Linn.

688. *Temenuchus Malabarica*, Gmelin.

693. *Eulabes intermedia*, H. H a y.

Family, FRINGILLIDÆ.

694. *Ploceus baya*, Blyth.

698. *Munia rubronigra*, Hodg.

699. *Munia undulata*, Lath.

735. *Hæmatospiza sipahi*, Hodg.

This bird is often captured by the Khasias at Surarim and brought in for sale.

742. *Propasser rhodochrous*, Vigors.

A ♀ obtained on Mahadeo Peak, Asálu;—there is some doubt as to whether it is the above species.

Order, GEMITORES.

Family, TRERONIDÆ.

773a. *Crocopus viridifrons*, Blyth.

776. *Osmotreron Phayrei*, Blyth.

778. *Sphenocercus sphenurus*, Vigors.

The primaries and secondaries are also edged with yellow, very narrow on the former.

779. *Sphenocercus apicaudus*, Hodg.

781. *Carpophaga*, (sp. not determined),—There was no coppery gloss whatever on the back, rump, and upper tail coverts of a species from Asálu, these parts were of a dark neutral grey tint, tail dark indigo,— $1\frac{3}{4}$ inches from the end much paler, undertail coverts dirty white, irides pale grey.

Sp.	Length.	Tail.	Extent.
1	18 inches	7"	27½"
2	18"	7½"	30"

I am sorry to say that no specimen was kept of this fine bird, it was very numerous in the forest above Garilo (Chota Asálu) in January, and several were shot, being excellent eating, the skinning of one for a specimen was always postponed, and in February they had disappeared. Lieut. Beavan observed *Carpophaga insignis* and this species at Molshai in the North Cachar Hills, and shot several of both, I am indebted to him for the following descriptions and measurements.

No. 1, *C. insignis*, Hodg.—Above, head slate color, back wings and tail darker with a bronze tinge, under parts light slate, tail and wing feathers darker. Length 16.5, inches, expanse 29", wing 9.5", tail 6", tarsus 1.5", bill 1", centre claw 1.9", hind 1.3". Bill breadth at base 0.4", breadth of lower mandible 0.5". Irides, dark red with gold specks apparent in the sunshine. Legs and feet pink, feathered half way down the tarsus.

No. 2, *Carpophaga*, species (unknown).

General color slate, head and under parts light, upper parts dark, especially the larger wing and tail feathers, extreme two inches of tail lighter than the rest, forming a transverse band.

	Length,	extent,	wing,	tail,	tarsus,	centre claw,	hind claw.
Sp. a.	18·6 in.	29·4"	9 6"	8"	1·5"	1·9"	1·3"
„ b.	17·5 „	28"	9·4"	7"	1·4"	1·9"	1·3"

Bill one inch, soft and curved at tip, flesh colored,—upper compressed at base, lower the broadest, breadth ·4", lower mandible in sp. a, 0·7", in sp. b, 0·6", nostril elongated, in which point it differs from *P insignis*. Irides, light bluish grey.

791a. *Macropygia tusalia*, H o d g.

The bird I obtained on the top of Mahadeo differs somewhat from this species, there was no tinge of lake on the bill. Orbits were black not red as in *M. tusalia*, the inner circle of the irides yellow, in the coloration of the throat and lateral tail feathers it agrees with *Columba leptogrammica* of Temmink. Length 15½ inches, extent 21½", wing 10", tail 7½", tarsus 1", bill 1½", legs and feet dull red, bill black.

795. *Turtur suratensis*, G m e l i n.

The female is not only smaller but decidedly of duller plumage.

798. *Chalcophaps Indicus*, L i n.

Of the RASORES very few have been collected, and of the GRAL-
LATORS, all obtained are so widely distributed and so wellknown
that the record is of little value until more have been noticed.—The
whole order is badly represented in these Hill ranges.
